REMARKS

Claims 1-11, 13-22, and 24-34 are pending in the instant application. Withdrawn claims 3-11, 14-22, and 24-34 are cancelled herein. Applicant reserves the right to file one or more divisional applications to pursue the cancelled claims drawn to the non-elected inventions. Claims 1, 2, and 13 are under examination. Claims 1 and 13 have been amended. Support for the amendments can be found within the claims themselves. The claims include no new matter.

Claim Objection

The Office Action has objected to claim 13 for including a typographical error in line 2. Applicant thanks the Examiner for the careful reading of the claims. The claim has been amended to correct the typographical error.

Specification

The Office Action has objected to the specification for including a hyperlink. Applicant thanks the Examiner for the careful reading of the specification. As suggested, "http://" has been deleted from the specification as set forth above. This amendment includes no new matter.

Rejection of claims under 35 U.S.C. §112, second paragraph

The Office Action has rejected the claims under 35 U.S.C. §112, second paragraph for allegedly failing to distinctly point out the matter claimed for recitation of the phrase "derivative thereof". Without agreeing with the rejection, Applicant has deleted the language from claims 1 and 13. The rejection is overcome.

Rejection of claims under 35 U.S.C. §112, first paragraph

The Office Action has rejected the claims under 35 U.S.C. §112, first paragraph for allegedly failing to comply with the requirements for written description and enablement for recitation of the phrase "derivative thereof". Without agreeing with

the rejection, Applicant has deleted the language from claims 1 and 13. The rejection is overcome.

Rejection of claims under 35 U.S.C. §102

The Office Action has rejected claims 1 and 2 under 35 U.S.C. §102(a) for allegedly being anticipated by Place et al. (*Clin. Cancer Res.* 9:2798-806, 2003). The Office Action asserts that Place teaches administration of a CDDO imidazolide derivative to inhibit inflammatory response and tumor growth.

The claims have been amended as set forth above to recite a method comprising administration of CDDO, not a derivative of CDDO. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). As each and every element of the claims is not set forth in the cited art, the rejection is overcome.

The Office Action has rejected claims 1, 2, and 13 under 35 U.S.C. §102(e) for allegedly being anticipated by Salcedo et al. (WO2004/016753). Applicant respectfully disagrees. As noted in the Office Action, Salcedo requires the administration of antibodies that bind TRAIL to treat HIV and AIDS in a subject. "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Although the instantly claimed invention does not preclude the administration of an antibody with CDDO, the Sclado reference does not provide an enabling disclosure to practice the instantly claimed methods or any suggestion that administration of CDDO alone could provide one of the methods claimed. Paragraph 477 of the application reads as follows:

> In one embodiment, an antibody composition of the invention is administered **in combination** with a histone deacetylase inhibitor (e.g., depsipeptide (e.g., FK-288 and FR901228), MS-275, and the triterpenoid 2-cyano-3,12-dioxooleana-1,9-dien-28-oic acid (CDDO) or other molecules related to CDDO, valproic acid, suberoylanilide hydroxamic acid (SAHA), pyroxamide, trapoxin, (depsipeptide), and N-acetyl dinaline (CI-994). [emphasis added]

Therefore, Salcedo teaches administration of **an antibody with CDDO**. Salcedo does not arrange the elements as required by the claim. Applicant notes that the instant claims are drawn to a method and recite that administration of CDDO provides an attenuation of at least about 50% in transmission or infection of virus relative to an untreated cell. Salcedo does not teach administration of CDDO to provide an attenuation of at least about 50% in transmission or infection of virus relative to an untreated cell.

> Invalidity by anticipation requires that the party arguing for invalidity prove by clear and convincing evidence "that each and every limitation of the claimed invention be disclosed in a single prior art reference." *In re Paulsen*, 30 F.3d 1475, 1478-79 [31 USPQ2d 1671] (Fed.Cir. 1994) (citations omitted)..... "In addition, the **reference must be enabling** and describe the applicant's claimed invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention." *In re Paulsen*, 30 F.3d at 1478-79. (*United States Filter Corp. v. Ionics Inc.*, 53 USPQ2d 1071 (D. Mass. 1999)at 1076-1077, emphasis added)

Applicant submits that **all of the embodiments** provided by Salcedo include the administration of an antibody. The reference does not provide enabling disclosure of the method as claimed. Withdrawal of the rejection is respectfully requested.

The Office Action has rejected claims 1,2, and 13 under 35 U.S.C. §102(b) for allegedly being anticipated by Xu (US Patent 5,916,919). The Office Action asserts that Xu teaches treatment of retroviral infection using CDDO derivatives. Without agreeing with the rejection, Applicant has amended the claims above to cancel CDDO derivatives. The rejection is overcome.

Rejection of claims under 35 U.S.C. §103(a)

The Office Action has rejected claims 1, 2, and 13 for allegedly being anticipated by Xu in view of Salcedo further in view of Nasti et al. (*Biomed Pharmacother*. 51:243-251). The Office action states that Xu is relied on for the reasons set forth in the 102 rejection, Salcedo is relied upon to teach the use of CDDO rather than CDDO derivatives for the treatment of HIV. Natsi is relied upon for teaching the prevalence of Kaposi's sarcoma in AIDS populations. The Office Action states that

> "Accordingly, in view of Salcedo et al. one of skill would had [*sic*] a reason to apply the **antibody/CDDO combination therapy** for to [*sic*] treat cancers specifically recommended by Salcedo et al., including Kaposi's sarcoma." (page 14, emphasis added)

However, the instant claims are directed to administration of CDDO. No reference could provide motivation to modify Salcedo to provide a therapy that did not include an antibody as noted in the Office Action.

MPEP Section 2143.01 provides possible suggestions or motivations to modify the references and situations in which references cannot be combined or modified. For example, the section notes that a proposed modification, e.g. treatment without an antibody, cannot render the prior art unsatisfactory for its intended purpose. The MPEP notes that

> If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)

Provided with the teachings of Salcedo, one of skill in the art would expect that a treatment not including the antibody would be unsuccessful and therefore unsatisfactory for its intended purpose.

Further, the MPEP (section 2143.02) notes that a reasonable expectation of success is required to make an obviousness rejection. Clearly Salcedo knew that

CDDO existed. However, Salcedo clearly did not expect that CDDO would be sufficient for the prevention or treatment of AIDS infection and therefore developed the antibody taught therein. One could not reasonably expect success to perform the methods claimed to provide "an attenuation of at least about 50% in said transmission or infection of said virus relative to an untreated cell" without the antibody of Salcedo.

Further, provided with the teachings of Xu, one of skill in the art would not have a reasonable expectation of success in practicing the methods of the invention provided with the huge potential number of compounds provided by Xu. Xu teaches compounds base on the structure provided by Formula I in which:

> the triterpene is of the Formula I shown in FIG. 11 where R_1 and R_2 are identical or different and are independently selected from H, OH, =O, C_1 -C_{10} unbranched alkoxy group, C_1 -C_{10} branched alkoxy group, C_1 -C_{10} unbranched acyloxyl group and C_1 -C_{10} branched acyloxy group; R_3, R_4, R_5 and R_8 are identical or different and are independently selected from H, C1-C10 branched alkyl group, C_1 -C_{10} unbranched alkyl group, C_1 -C_{10} branched alkoxy group, C_1 -C_{10} unbranched alkoxy group, a C_1 -C_{10} branched acyloxy group, a C_1 -C_{10} unbranched acyloxy group and a =O group; R_6, R_7 and R_9 are identical or different and are independently selected from a COOH group, a --$COOCH_3$ group, a --CH_2OH group and a C1 -C10 unbranched alkyl group. Also included are pharmaceutically acceptable salts and modified derivatives of the compounds of Formula I such as the 28-beta-D-glucoside derivatives. (col 3, lines 17-34)

Therefore, the number of possible structures that are taught by Xu are in excess of 4.6×10^{12} possible compounds (at least 43 options for R_1 and R_2, at least 62 options for R_3, R_4, R_5, and R_8, at least 13 options for R_6, R_7, and R_9). Applicant counted the C_1-C_{10} branched compounds as 10 options to simplify calculations, however the number of actual R groups that are provided by the category of C_1-C_{10} branched compounds is far in excess of 10.

The issue of obviousness of a specific compound when the cited art provides essentially an infinite number of compounds was considered post-KSR in *Takeda Chemical Industries Ltd. v. Alphapharm Pty.* Specifically the Court stated:

> While the KSR Court rejected a rigid application of the… TSM test in an obviousness inquiry, the Court acknowledged the importance of identifying **'a reason** that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does' in an obviousness determination.
>
> When there is a design need or market pressure to solve a problem and **there is a finite number of identified, predictable solutions**, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp." *KSR*, 127 S. Ct. at 1732. * * * That is not the case here. Rather than identify predictable solutions for antidiabetic treatment, the prior art disclosed a broad selection of compounds any one of which could have been selected as a lead compound for further investigation. Significantly, the closest prior art compound (compound b, the 6-methyl) exhibited negative properties that would have directed one of ordinary skill in the art away from that compound. *Takeda Chemical Industries Ltd. v. Alphapharm Pty.* 492 F.3d 1350 (Fed. Cir. 2007) [emphasis added]

The Office Action provides no reason that would have prompted one of ordinary skill to combine the elements in the way that the claimed new invention does. The Xu reference does not provide a "finite number of predictable solutions." As one would have to go beyond the teachings of Xu to arrive at the claimed compound, the instantly claimed methods cannot be obvious.

Nasti does nothing to compensate for the deficiencies of the combined teachings of Xu and Salcedo. Withdrawal of the rejection is respectfully requested.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

FEE AUTHORIZATION

It is believed that there is no fee due with this response. However, if a fee is due with this paper or any other paper filed by this firm in relation to this application, the

Commissioner is hereby authorized to charge Deposit Account No. 04-1105 referencing Docket No. 64868(47992). Refund of any overpayments is respectfully requested.

Respectfully submitted,

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